

## **SUMMARY OF HYDROLOGIC CONDITIONS IN BIG CYPRESS BASIN**

**October 2004**

### **SUMMARY**

The hydrologic conditions in southwest Florida were substantially drier than normal in October. Surface and groundwater levels started the downward trend of the annual dry season cycle. All water control structures were set to their dry season operating schedules. No backpumping was performed.

### **RAINFALL**

An abrupt early end to the sea breeze cycle and lack of frontal weather systems contributed toward making October a very dry month. Total monthly rainfall varied from 0.39 inches in Immokalee to 2.36 inches at the BCB Field Station. The weighted average rainfall measured in 14 stations across the Basin was 1.54 inches, approximately 42 percent of normal for October. The cumulative rainfall for the calendar year is approximately 48 inches, which is 91 percent of long-term regional average. A summary of rainfall recorded at various stations across the Basin is illustrated in Table 1 and Figure 1.

### **STREAMFLOWS AND GROUNDWATER LEVELS**

Surface water levels in the canals and streams started their downward trend of the annual cycle. Regionally they were at normal October levels. All water control structures were set to dry season operating schedules. A summary of the surface water stage hydrographs at selected locations is illustrated in Figures 2 and 3. The groundwater levels in the surficial water table aquifer recorded an average decline of 0.45 feet, while the Lower Tamiami aquifer recorded an average decline of 1.1 feet from their corresponding levels in September. Hydrographs of selected key indicator wells are illustrated in Figure 4.

## WATER USE

The average daily raw pumpages by the major public water utilities in the Basin during October 2004 are as follows, and are illustrated in Figure 5.

Average Daily Raw Water Pumped (MGD)

Utility	October 2004	October 2003
1. City of Naples Water Utility	16.790	17.017
2. Collier County Utilities	n/a	27.820
3. Marco Island Water Utility*	5.835	4.733
4. Immokalee Water & Sewer District	2.333	2.205

\* Surface water only.



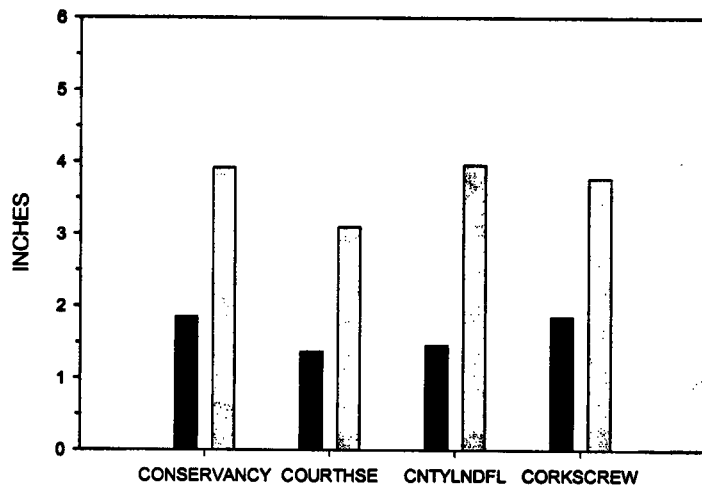
TABLE 1  
RAINFALL REPORT - OCTOBER 2004  
DISTRICT/BASIN RAINFALL STATIONS  
(ALL NUMBERS ARE IN INCHES)

STATION INDEX NO.	STATION NAME	CURRENT MONTH 2004	LONG TERM AVERAGE FOR THIS MONTH	CALENDAR YEAR 2004 CUMULATIVE TOTAL	AVERAGE CALENDAR YEAR TO DATE	LONG TERM YEARLY AVERAGE
R-1	CONSERVANCY	1.85	3.92	38.30	49.87	53.02
R-2	COLLIER COUNTY COURTHOUSE	1.37	3.10	39.99	48.17	52.10
R-3	COLLIER COUNTY LANDFILL	1.46	3.96	60.68	59.19	63.66
R-4	CORKSCREW SWAMP SANCTUARY	1.85	3.77	60.88	54.75	58.38
R-5	FAKAHATCHEE STRAND STATE PRESERVE	1.55	3.33	47.59	59.63	63.44
R-6	GOLDEN GATE FIRE STATION # 2	1.87	3.49	63.17	52.94	56.89
R-7	IMMOKALEE LANDFILL	1.45	3.56	48.73	48.23	52.46
R-8	IFAS (INST. OF FOOD/AGRI.SCIE.) N. IMMOKALEE	0.39	3.08	35.08	47.23	51.04
R-9	MARCO ISLAND R.O. PLANT	2.06	4.18	43.02	52.69	56.83
R-10	MILES CITY STATE FORESTRY TOWER	0.71	3.55	42.58	57.33	61.98
R-11	COCOHATCHEE STRUCTURE # 1	N/A	3.49	50.11 Inc/Rec	46.68	47.34
R-12	SILVER STRAND GROVE	0.51	3.49	47.77	51.83	55.97
R-13	BCB FIELD STATION	2.36	3.84	45.96	52.43	56.38
R-14	COLLIER/SEMINOLE STATE PARK	1.84	3.74	55.61	50.88	55.00
R-15	BONITA SPRINGS WATER PLANT	0.24	3.50	42.45	51.65	55.27

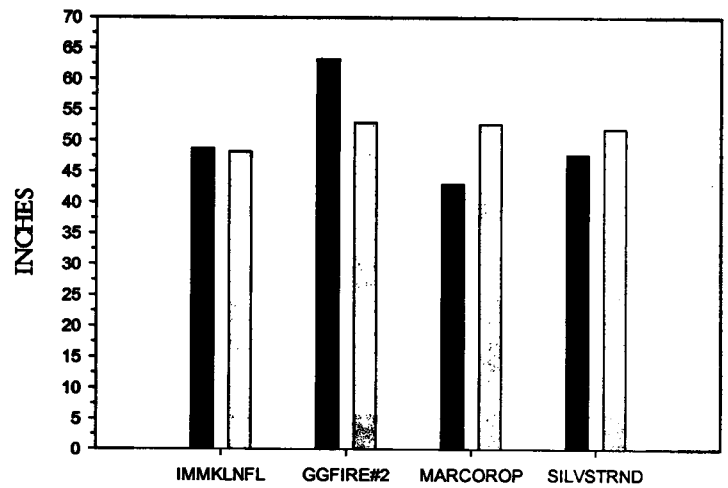
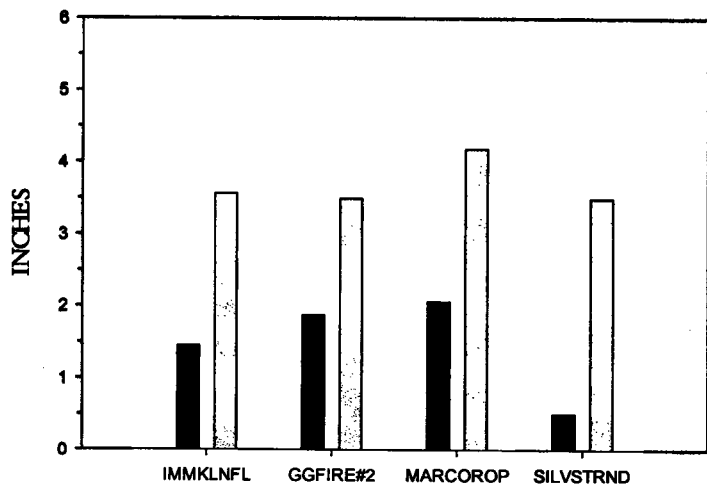
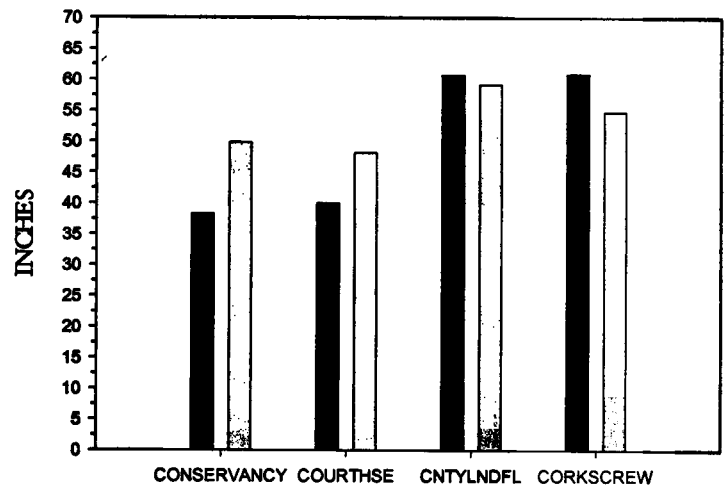
# MONTHLY AND YEAR-TO-DATE RAINFALL AT SELECTED LOCATIONS

SEPTEMBER 2004

MONTHLY TOTAL RAINFALL



RAINFALL TO DATE, YEAR 2004



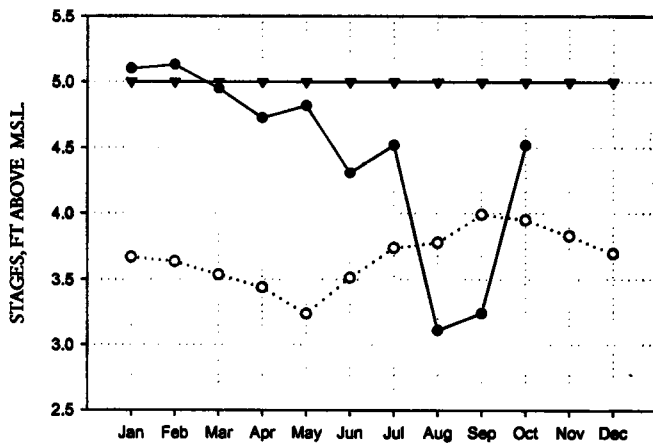
THIS MONTH  
 AVERAGE MONTH

THIS YEAR  
 AVERAGE YEAR

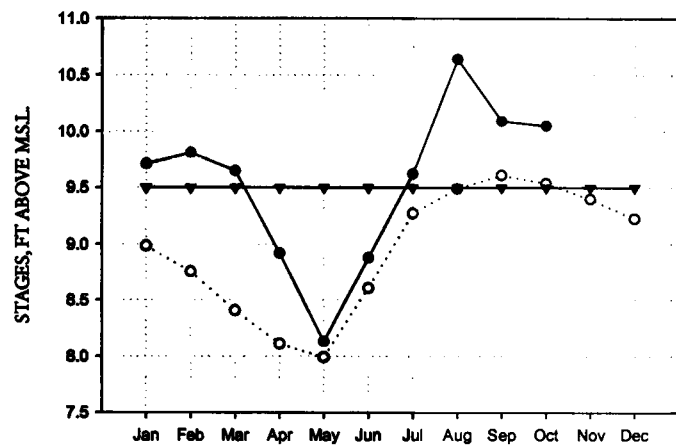
FIGURE 1

# MONTHLY MEAN CANAL STAGES AT SELECTED LOCATIONS 2004

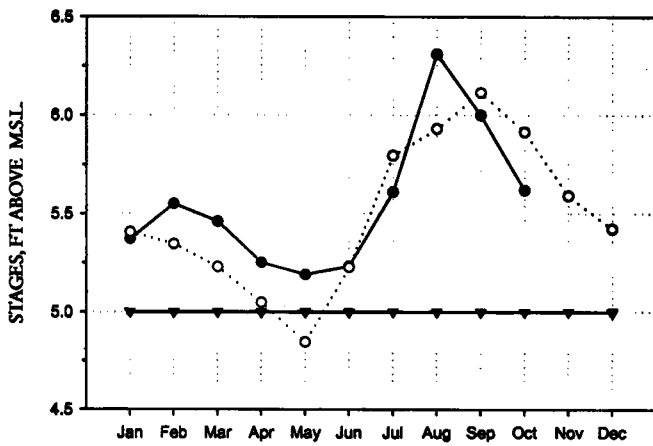
## GOLDEN GATE CANAL AT WEIR 1



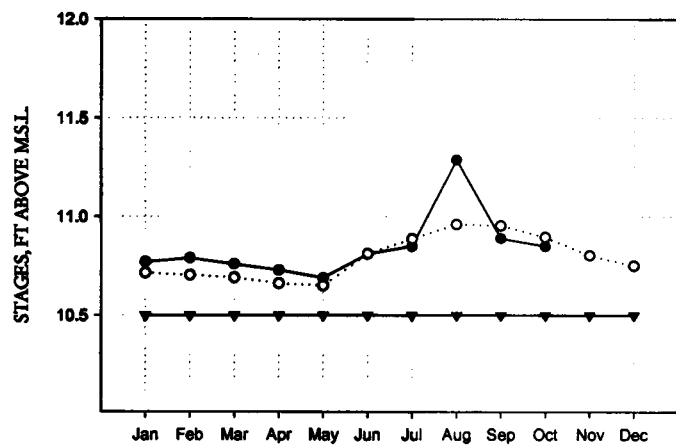
## GOLDEN GATE CANAL AT WEIR 4



## GOLDEN GATE CANAL AT WEIR 2



## GOLDEN GATE CANAL AT WEIR 5



## GOLDEN GATE CANAL AT WEIR 3

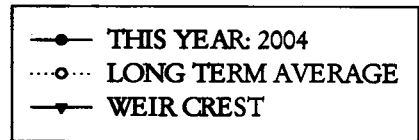
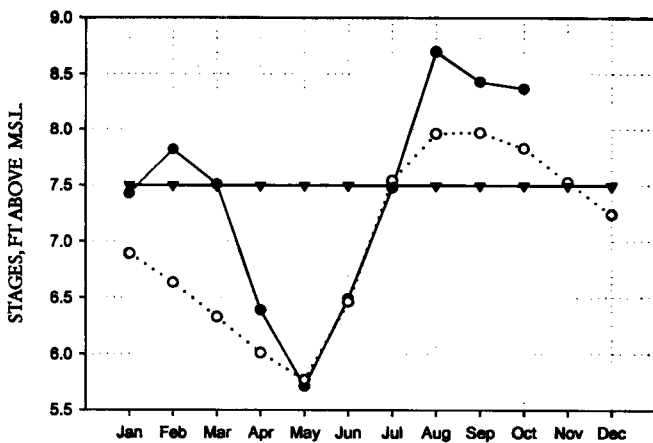


FIGURE 2

# MONTHLY MEAN CANAL STAGES AT SELECTED LOCATIONS

2004

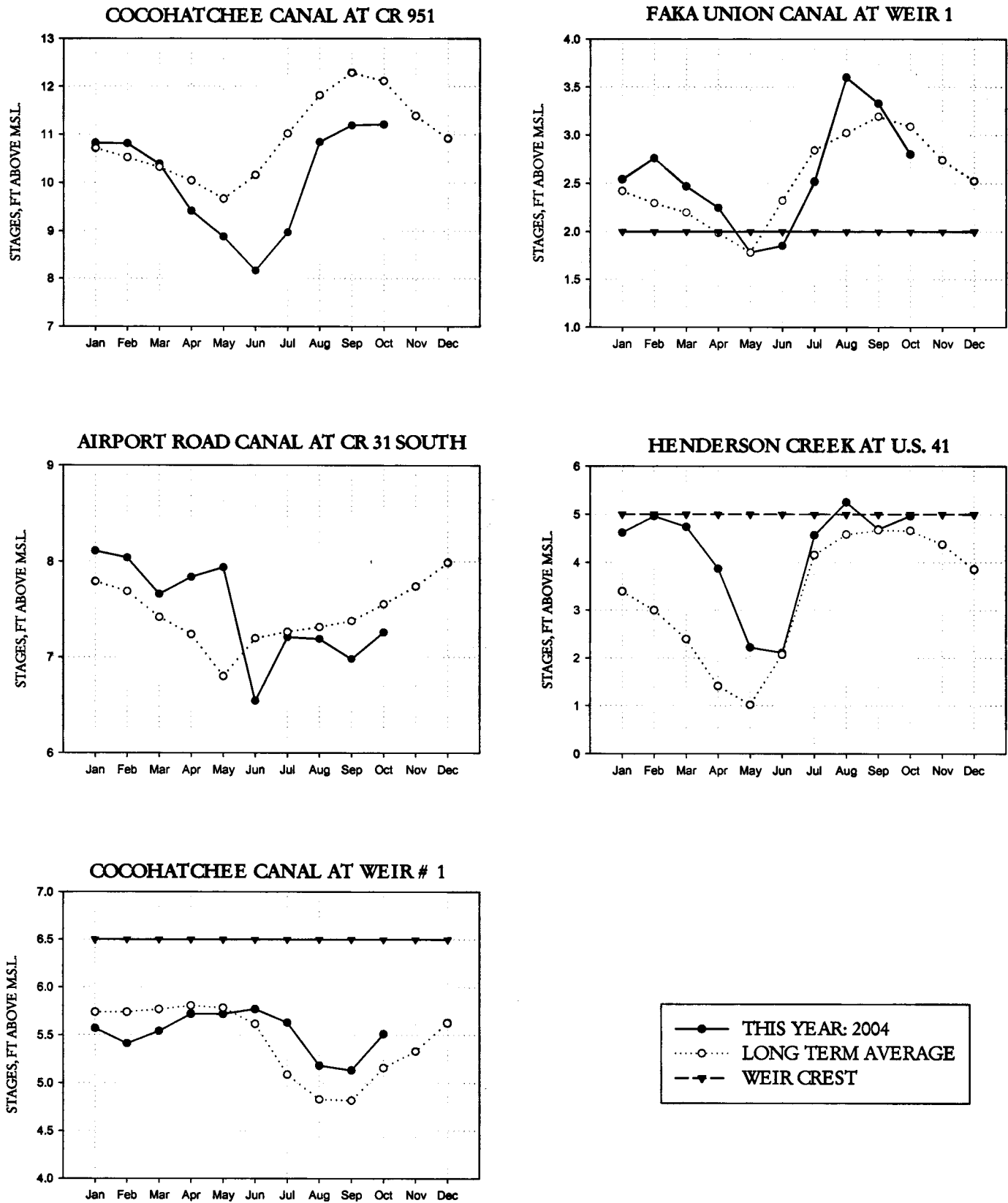
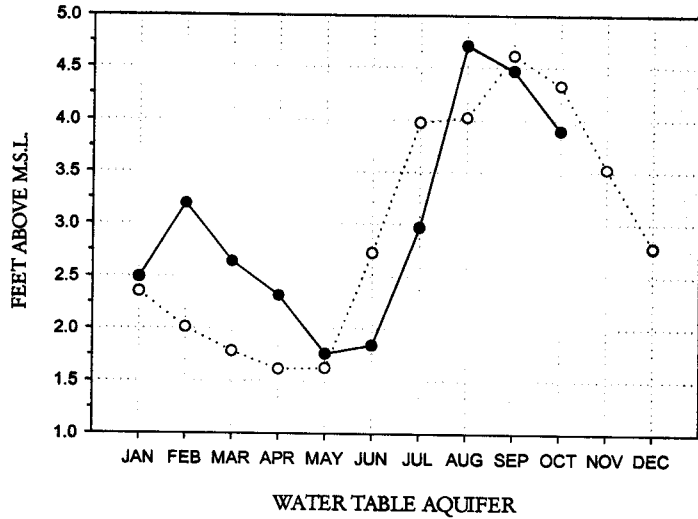


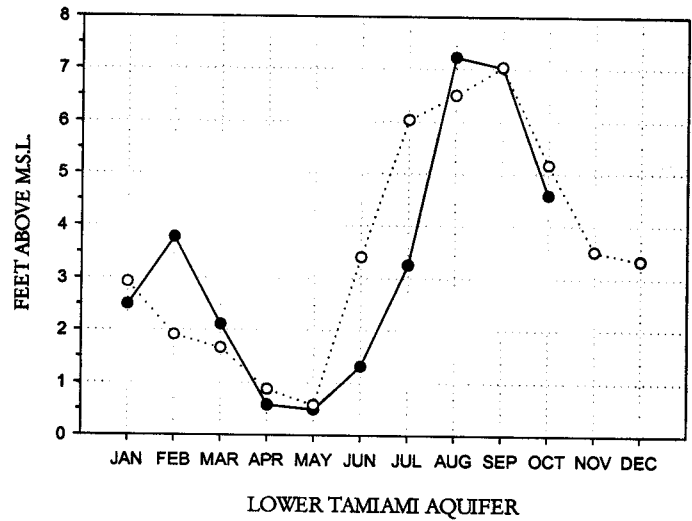
FIGURE 3

# GROUNDWATER LEVELS AT SELECTED LOCATIONS 2004

GROUND WATER LEVELS AT WELL C-1063  
NEAR SIX Ls FARM ON US 41 EAST



GROUND WATER LEVELS AT WELL C-1004R  
PALM RIVER BOULEVARD, NORTH NAPLES



GROUND WATER LEVELS AT C-492  
CORKSCREW SWAMP SANCTUARY

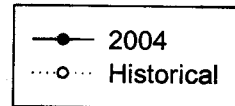
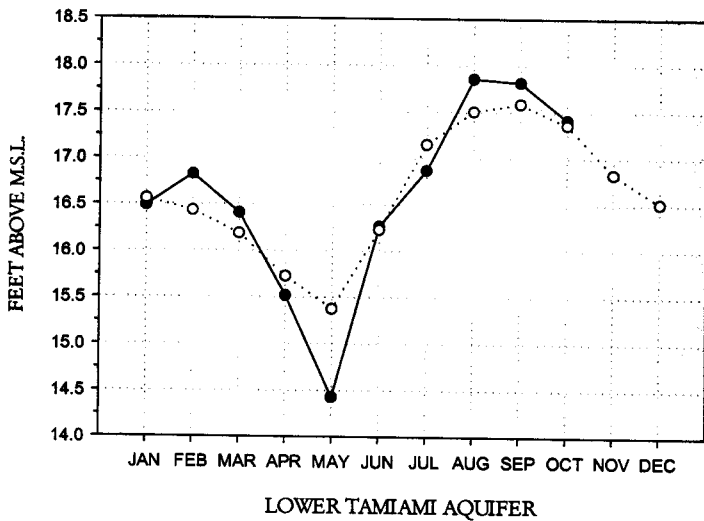


FIGURE 4



# WATER USE BY MAJOR PUBLIC UTILITIES 2004

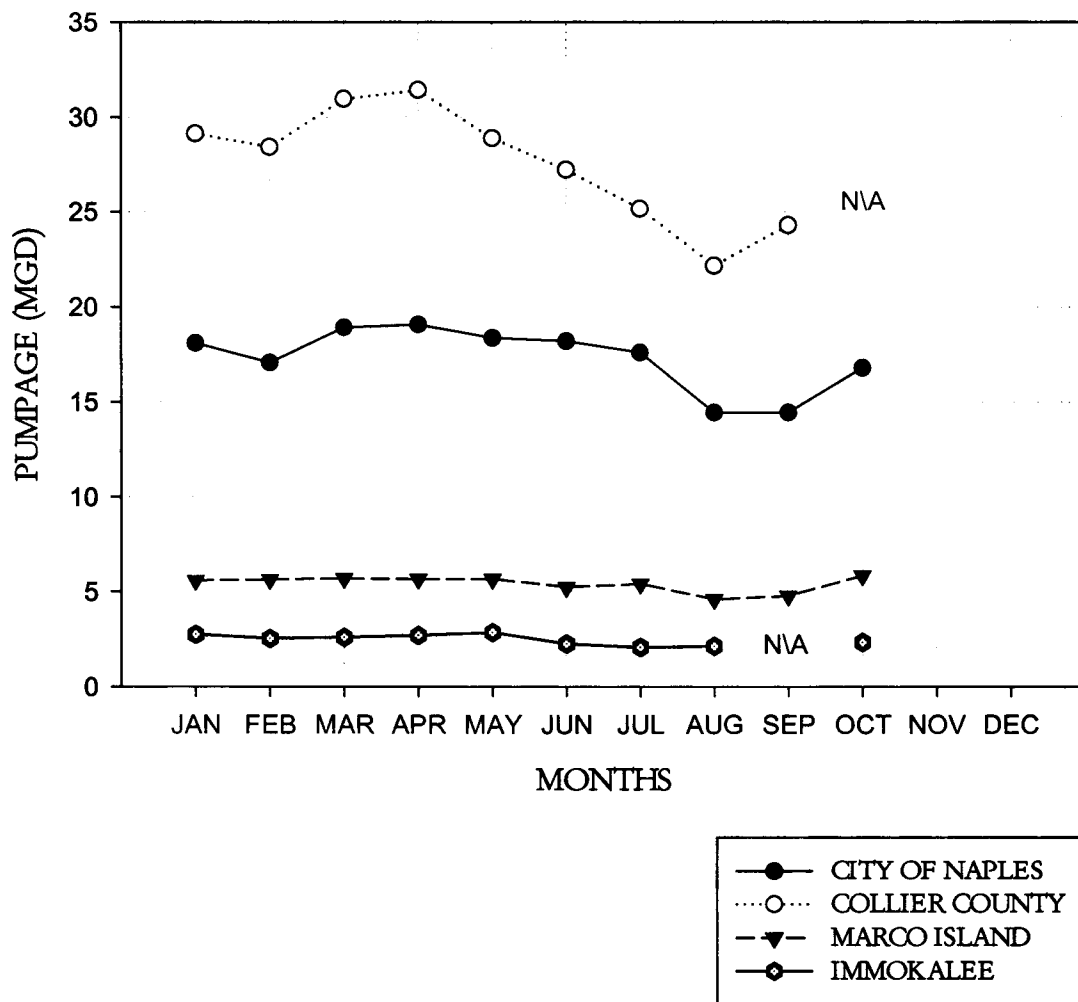


FIGURE 5